

Honeywell Docket No. 30-4949 DIV2 - 4960
Practitioner Docket No. 7230185002-3223000

CURRENT CLAIMS

- 1-33. Canceled.
34. (New) A bond-ply material, comprising:
- a cured core having a first surface and a second surface, wherein the core has a thickness of from about 5 microns to 200 microns and including from about 20% and 70% weight percent (wt%) non-woven reinforcement material selected from glass microfibers, organic fibers and mixtures hereof; and
- wherein the material comprises a plurality of vias filled with an electrically conductive material or a conductor precursor.
35. (New) The bond-ply material of claim 34, further comprising a B-stage resin layer having a thickness of from about 2 micrometers to about 200 micrometers and covers the core first surface, the core second surface, or both the core first surface and the core second surface.
36. (New) The bond-ply material of claim 34, wherein the core is a C-stage core.
37. (New) The bond-ply material of claim 34, wherein the plurality of vias is perpendicular to the plane of the material.
38. (New) The bond-ply material of claim 34, wherein the nonwoven reinforcing material is a mixture of micro-fiber glass and organic fibers.
39. (New) The bond-ply material of claim 38, wherein the nonwoven reinforcing material includes from about 10 to about 90 wt % of micro-fiber glass and from about 10 to about 90 wt % of a second reinforcing material selected from organic fibers, organic microfibers, organic pulp and mixtures thereof.
40. (New) The bond-ply material of claim 39, wherein the organic fibers are selected from poly (p-phenylene-2,3-benzobisoxazole) staple fibers, pulp, microfibers and mixtures thereof.
41. (New) The bond-ply material of claim 34, including a plurality of essentially undamaged laser ablated vias having diameters of from 5 to 150 micrometers.

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42. (New) The bond-ply material of claim 39, wherein at least 80% of the micro-fiber glass has a diameter of less than about 1 micron.
43. (New) The bond-ply material of claim 38, including from about 5 to about 55 wt % of non-woven reinforcing material and from about 45 to about 95 wt % polymer selected from a thermoplastic polymer and a B-stage thermosetting resin and mixtures thereof.
44. (New) The bond-ply material of claim 34, wherein the electrically conductive material comprises a conductive paste, a conductive ink, a conductive polymer or mixtures thereof.
45. (New) The bond-ply material of claim 34, wherein the conductor precursor generates a conductive material upon heat treatment.
46. (New) The bond-ply material of claim 44, wherein the conductive paste comprises a particulate-based high-solid conductive paste.
47. (New) The bond-ply material of claim 46, wherein the conductive paste comprises a plurality of inorganic particles in an organic medium.